

CLAIMS

✓ 1. A method of detecting agglutination in a sample of cells, comprising the steps of inducing the cells to change at least one of their properties so as to separate agglutinated cells and detecting the resultant alteration in the cell population.

2. A method according to claim 1, comprising the step of measuring the force required to separate agglutinated cells.

10 ~~1~~ 3. A method according to claim 1 or 2, in which the property changed is that of the shape of the cells.

4. A method according to any preceding claim<sup>1</sup>, in which the cell sample is subject to an alteration to cause the cells to sphere.

15 5. A method according to claim 4, in which the alteration is a change in osmolality of a liquid medium in which the cells are suspended.

A 20 6. A method according to any preceding claim<sup>1</sup>, in which alterations in the cell population are detected by passing one or more aliquots of the cell sample through a sensor which is adapted to count the number of cells passing through the sensor.

7. A method according to claim 6, in which the sample is fed continuously into a solution the osmolality of which is changed continuously to produce a continuous

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series of aliquots of cells which are passed through the sensor.

8. A method according to ~~any preceding claim~~<sup>1</sup>, further comprising the step of pretreating the sample of cells to induce, or at least attempt to induce, agglutination.

9. A method according to ~~any preceding claim~~<sup>1</sup>, in which the cell sample is obtained from a source of whole blood.

10. A method according to claim 9, in which the sample of cells are treated with antibodies from a different source.

11. A method according to claim 10, in which the cells are treated in order to determine the blood type.

12. A method according to claim 10, in which the cells are treated in order to cross-match the sample.

13. A method according to ~~any of claims 10 to 12~~, in which the antibodies from the different source are manufactured, or come from whole blood, plasma or serum.

14. A method according to ~~any of claims 8 to 13~~, in which the sample of cells is pre-treated by exposure to heat.

15. A method according to ~~any of claims 8 to 14~~, in which the sample is warmed to a temperature of between 35°C to 40°C, preferably 37°C.

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16. A method according to ~~any of claims 8 to 13~~, in which the sample of cells is pre-treated by cooling the sample.

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